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IN THE CLAIMS:

1. (Currently Amended) A diaphragm assembly for being connected between an engine exhaust path and an engine control unit, said diaphragm assembly comprising:

a diaphragm housing; and

a diaphragm positioned in said housing and separating a first chamber and a second chamber, said first chamber configured to be in flow communication only with the engine exhaust path, and said second chamber configured to be in flow communication only with the engine control unit.

2. (Original) A diaphragm assembly in accordance with Claim 1 wherein said diaphragm housing comprises a first housing member and a second housing member, said diaphragm between said first and second housing members.

3. (Original) A diaphragm assembly in accordance with Claim 2 wherein an inner surface of said first housing member also is a side wall of said first chamber, said inner surface having a conical shape to facilitate drainage of water from said first chamber.

4. (Original) A diaphragm assembly in accordance with Claim 1 wherein said first chamber comprises a first column and said second chamber comprises a second volume, said first volume greater than said second volume.

5. (Original) A diaphragm assembly in accordance with Claim 1 wherein said diaphragm comprises an o-ring and a diaphragm member integral with said o-ring.

6. (Original) A diaphragm assembly in accordance with Claim 5 wherein said o-ring and said diaphragm member are fluorosilicone.

7. (Original) A diaphragm assembly in accordance with Claim 5 wherein said diaphragm housing comprises an o-ring groove for receiving said o-ring.

8. (Original) A diaphragm assembly in accordance with Claim 5 wherein said diaphragm housing comprises a first housing member and a second housing member, said first and second housing members each comprising an o-ring groove so that when said housing members are assembly, said diaphragm o-ring is trapped between said first and second housing members in said grooves.

Claims 9 –20. (Canceled)

21. (Currently Amended) A method for securing a diaphragm assembly to an engine, said method comprising the steps of:

coupling an inlet of the diaphragm assembly in flow communication only with an exhaust path of the engine; and

coupling an outlet of the diaphragm assembly ~~to~~only with an electronic control unit of the engine.

22. (Original) A method in accordance with Claim 21 wherein coupling an inlet of the diaphragm assembly in flow communication with an exhaust path of the engine comprises the steps of:

at least partially inserting a probe through an opening in the engine;

securing the probe in place so that at least a portion of the probe extends into an exhaust path of the engine;

engaging one end of a tube to the probe so that during engine operation, exhaust pulses sensed by the probe are transmitted through the probe to the tube; and

engaging a second of the tube to the inlet of the diaphragm assembly.

23. (Original) A method in accordance with Claim 22 wherein securing the probe in place comprises the step of threadedly engaging the probe within an opening in the engine.

24. – 57. (Canceled)